



Project Platypus Upper Wimmera Landcare

MISSION

Support and empower community.
Improve environmental health of Upper Wimmera Catchment.
Maintain and improve productivity.

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Down to Earth

FEBRUARY 2019 UPDATE

Welcome to our newsletter *Down to Earth*,

We have a jam packed newsletter this month with stories from our region of Australians making the world a better place. From Landcare women of the Wimmera making a difference in their communities to scientists making discoveries in the environment and agriculture that are of benefit to all.

I hope you enjoy Australia day.

Cheers Andrea

Local Landcare Facilitator

PS We have had a platypus sighting by Steve Start this week! #whattheplatypus



PSS Wildlife sightings can be recorded on the [Victorian Biodiversity Atlas](#)

February

2 [Birds & Animals of the Grampians](#) with Neil Macumber, Halls Gap

13 Jallukar Landcare meeting at John & Jocelyn Kings

Feb 13 - March 20 [FarmPlan21](#) Course, Ararat

March

3 Parks's Victoria Clean Up Australia Day

15 Stubble Trouble, with Ash deClifford, Rec Reserve, Navarre,

29 - 31 [LVI Biannual Landcare Forum](#), Halls Gap

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Inspiring Women of the Wimmera

There are many inspiring women active in Landcare projects across the Wimmera. I had the pleasure of interviewing a few for the latest issue of Landcare Victoria magazine which had a focus on women in Landcare (Thank you Leanne Jackman, Madelene Townsend, Ange Turrell and Penny Warner). Over the next few issues I will share their stories.

[Victorian Landcare magazine Summer 2019](#)

To download a PDF version: [Landcare Vic magazine](#)

I would love to hear about other champions of Landcare too - send in your nomination or story for inclusion in 'Down to Earth'.

Madelene Townsend Moyston Landcare

Curiosity prompted Madelene Townsend's Landcare journey. Retiring from Melbourne in 2005, she and husband Terry became tree-changers, moving to Moyston, Victoria.

Townsend was immediately hooked when she arrived at her first Landcare meeting. "I thought wow, this is just fantastic ... Right, I'd like to become a member," she said.

In 2006 Moyston Landcare elected Townsend as secretary and treasurer, yet she struggled in the beginning because she was new to the community. She felt like a complete stranger, but with the encouragement and support of serving presidents she gained confidence and tackled grant applications and other projects. "It was a big learning curve but I enjoyed it," she said.

Most recently she has cake stalls as a way of fundraising and promoting Landcare.

Townsend has always been fascinated with nature and how resilient it is, especially in Australia.



She has lovely childhood memories of living in a market garden with her parents, in Sussex, England growing vegetables and flowers, chickens and hazelnuts. In the adjacent woodland she would disappear to play and see squirrels, rabbits and deer and the changing seasons. This period encouraged her love for nature where she could get lost in that world.

Townsend believes fun, family orientated gatherings and interaction with the children helps foster and develop enthusiasm in Landcare. Now no longer secretary, Townsend gives community members ideas for inspiring environmental action.

"You just plant little seeds of thoughts and then people start thinking and it grows from there," she said.

Townsend's warmth and sincerity shine through in all that she does. She is an exemplary member of the Landcare and the community.

Townsend now sees the benefits of Landcare on her surrounding community.

"What was barren land is now treed, bushes, wildlife – what more do you want."

LVI Biannual Landcare Forum, Halls Gap

Learning between landholders has always been a strength of Landcare. In this Forum we investigate what we can learn from our traditional owners. We also look at what farmers are doing to ensure productivity and sustainability. Guaranteed to be an amazing weekend of fun, learning, networking and inspiration.

Friday 29th March

12 pm Registration and light lunch

In the afternoon there will be a bus tour to culturally significant sights and in the evening a bush tucker inspired meal with accompanying film to celebrate Lake Albacutya (Ramsar site) and its community.

6.30 pm Dinner followed by film

Approximate finish time 9pm

Saturday 30th March

8 am registration (daily tickets only)

Launch of the Landcare Employment and Workplace-Related Advice, Dispute Resolution, and Referral Service in partnership with DELWP.

Workshop - Sustainable Agriculture panel, Q & A session

Sustainable farm tour (lunch included):

1. Jack and Celia Tucker - farm revegetation and bandicoots
2. Christine and Peter Foster – carbon and biodiversity farming
3. Jallukar Landcare Group – indigenous grasslands and restoration project

6.30 pm Dinner

Guest Speaker - Tim Reeves, Professor, a distinguished international leader in agricultural research, development and extension.

Approximate finish time 9pm

Sunday 31st March

Free for all forum attendees

8.30 to 10am The best of the Grampians and surrounds promotional display, showcasing a diversity of people, produce and projects that make the region distinctive.

Q and A Session - includes a roundup of the event and packed lunch

DETAILED PROGRAMS AVAILABLE CLOSER TO THE EVENT DATE

Date & time: Fri 29th Mar, 12:00 pm - Sun 31st Mar 2019, 12:00 pm

Location: UC Camping - Norval

204-232 Grampians Rd, Halls Gap VIC 3381, Australia

Any queries, please contact the LVI office on 03 9207 5527 or email info@lvi.org.au

Bookings: <https://events.humanitix.com.au/landcare-victoria-inc-biannual-forum>

Birds & Animals of the Grampians

Friends of the Grampians - Gariwerd

Join Friends of the Grampians and local bird and animal expert Neil Macumber of [Birdswing Birding & Wildlife Tours](#) on a walk around the picturesque grounds of Brambuk. There will be bird watching followed by a slideshow of some of the rare and not so rare animals seen in the Grampians.

Saturday 2nd February 2019

4 pm - 5 pm Bird watching walk

5 pm - 6 pm Slide show

6.30 pm All welcome for a meal at the Halls Gap Hotel

RSVP fogsgariwerd@gmail.com



Leek orchids (*Prasophyllum*), beautiful & endangered

by Marc Freestone, PhD Candidate, Research, Botanic Gardens Victoria and Australian National University

Project Platypus had been helping me out with my PhD project studying the leek orchids at Deep Lead Cemetery, by providing a water trailer to water the orchids.

I'm trying to work out how to grow leek orchids (*Prasophyllum*), a large genus of native orchids with some very endangered species. One of the many problems facing our endangered leek orchids is that we don't know how to grow them in cultivation, meaning we can't implement the breeding programs that are so successful for other endangered orchid species. My research is to work out why we can't get leek orchid seed to germinate in cultivation. We've got several theories, including that it's a problem with seed viability (although recent evidence suggests that's unlikely), an issue with the conditions we are providing the seeds when we're trying to grow them, or something to do with the relationship between the orchids and their symbiotic fungi. Like all orchids, leek orchids have microscopic seed that doesn't contain any food for the developing embryo. Instead, they rely on a particular species of soil fungus to inoculate the seed and feed it the nutrients it needs to germinate and grow into an adult plant. These fungi continue to live in the roots of the adult leek orchids, but when we extract them from an adult root, the fungi we get don't germinate the seed. So we're interested to know what species of fungi is responsible for seed germination naturally. To find this out, I buried



Sturdy Leek Orchid (Prasophyllum validum)



"Tea bags" containing seed. Microscopic orchid seeds must bond with fungi to germinate

In September I removed the seed packets and several of them contained germinating leek orchid seeds - an excellent result. The fungi was extracted from these seedlings and is in the process of being identified using DNA testing, after which we can compare it to the fungi I extracted from the roots of several wild adult orchids at the site. This will hopefully shed some light on why these orchids are so difficult to grow.

I am indebted to John and Project Platypus for your support, without the supplementary watering I doubt we would have been able to get any germinated seedlings.

plastic 'tea bags' containing seed of the Woodland Leek-orchid (*Prasophyllum* aff. *validum*) around wild plants of this species at the Deep Lead Cemetery. With the loan of a water trailer from Project Platypus, I watered the seeds to make up the average rainfall that should have fallen at the site, but didn't due to the dry conditions.

Thank you!
Marc Freestone

More from Marc. Check out *The Conversation* [Leek orchids are beautiful, endangered and we have no idea how to grow them](#)

Seed and Feed summary – December 14th 2018

A small band of women traveled to Horsham and were treated to a full tour of the Grains Innovation Park with Justine Severin giving a presentation and showing us around the facility. We listened to PhD students discuss their projects on pulses and grains, especially in relation to nutritional and baking qualities. We also looked at the Australian Grains Genebank which is the national program for preserving grain crop genetic resources in Australia.

Australian Grains Free Air CO₂ Enrichment (AGFACE) project (from 2007 – 2018)

We learned about the AGFACE project with Justine Severin. AGFACE was essentially set up to answer the question of how can Australian agriculture adapt to elevated carbon dioxide (CO₂) on crop production in a changing climate. The FACE (Free Air CO₂ Enrichment) technique has been used internationally at more than 30 sites, investigating a multitude of ecosystems including cropping systems, pastures, and forests. AGFACE was the only FACE facility located in a semi-arid zone and it allowed researchers to test and experiment on the impacts of elevated CO₂ on growth, physiology, agronomy, yield, and quality of grain, bread and noodles.

A key finding from the research was that crops grown under elevated CO₂ grow bigger, but they will need more nitrogen and phosphorus to support them. Grain quality, unfortunately, is likely to decrease. The project also led to discoveries about the effects of elevated CO₂ on soils and that grain protein levels and bread quality would decrease, along with important micro nutrients such as zinc and iron.

There is ongoing study by scientists and students across the world using the important data collected from the AGFACE project which finished in 2018.

Links to AGFACE written by Justine Severin are in the last newsletter

Research

Given a tour of the labs at Grains Innovation Park, we met several PhD students. One was Drew Portman, former carpenter now Agricultural research student. He was researching with others the health benefits of lentil flour. Predominantly working with legumes and using flours from pulses and incorporating them into other foods the team study the health and nutritional benefits. They especially focused on damaged pulses (due to frost, drought, discolouration etc), that could be value added. They learned that they can increase the protein levels of wheat-based products by the inclusion of legume proteins such as lentil flour.

Another scientist, Emily Thoday-Kennedy showed us growing facilities at the impressive high-throughput Plant Phenomics Victoria glasshouse at GIP. The team she is in are breeding grain varieties which are less reliant on fertiliser and more tolerant to changing climates. They do research in the controlled environment glasshouses as well as field research experiments. At this world class facility they produce research that not only benefits Australian farmers in the production of food, but also the world.

Emily Thoday-Kennedy [driven by love of science](#)

The Australian Grains Genebank (AGG)

Dr Sally Norton kindly showed us around The Australian Grains Genebank at Grains Innovation Park. The AGG is a national program for preserving grain crop genetic resources for Australia. Their mandate is to acquire, conserve, maintain viable seed and to distribute diverse germplasm for future research and breeding. Seed is conserved in -20° freezers that keep most crop species viable for more than fifty years. There is a collection of 150,000 different types of seeds. Dr Horton sent some 9300 globally unique seeds from Australia to the Svalbard Bank (A world seed storage facility in Norway representing the world's largest collection of crop diversity) in 2018.

Article about Dr Sally Norton [Weekly Times](#)

Haven Grown

After a salubrious lunch at BAA 3400, we travelled to Haven, just out of Horsham. Matthew Rohrsheim runs Haven Grown, an intensive organic market garden on 0.2 hectare of his 1.5-hectare property. He supplies his locally grown produce to selected cafes and community with salad mix, root veg, tomatoes, beans, peas, herbs and lots more. We toured his property and were shown various innovations which make growing and harvesting on a small scale easier. One such product was the Quick Cut Greens Harvester which ran off a power drill and worked like a mini-harvester to cut and collect salad greens, making his work-load infinitely quicker and more cost effective.

[Quick Cut Greens Harvester](#)

The day was not only a great catch-up, but a learning opportunity into Australian agriculture that makes a difference to our lives. Every person was engaged and asking questions throughout the day. Thanks must go to Wimmera CMA for sponsoring the event, staff at Grains Innovation Park and Matthew Rohrsheim of Haven Grown for making the day a good one.



Dr Sally Norton talking seed at The Australian Grains Genebank

Grains Innovation Park tours and transport

School groups may be eligible to **apply for sponsorship** from the Wheat Research Foundation for transport to Grains Innovation Park.

To find out more email Penny Stemp at: pennystemp@gmail.com.

Any group is welcome to submit an **expression of interest in a GIP tour** here:

<https://goo.gl/forms/U1gjQLuMEnMscLgx2>

Storytelling your rescue story

Gretchen Miller runs Landcare Australia's Rescue Project and is hoping Landcare members and groups might be interested in participating in a 500 word story telling project inviting all land carers to tell their stories of: what it's like to do what you do; what you give to the land; what it gives back to you.

Would you like to share your environmental story in a public space?

Rescue is a partnership between Landcare Australia and UNSW and forms part of Gretchen's PhD research project into the power of citizen storytelling in environmental communication.

Have you ever rescued a riverbank? A tract of bush, an eroded beach, a waterway, some farmland, a garden or a native tree? A native animal or bird?

What do you feel as you tend to tired earth, or engage with the intrinsic value of an old-growth giant, or as you look into that creature's eyes?

And, in some way, do these things rescue you?

In the act of environmental rescue we nurture a tree through drought, we restore a place, or we restore a native animal, to health. But this is not a one-way encounter. In rescuing we too receive something in return. In the act of giving back, there is a quiet emotion we might feel that nourishes ourselves, and sometimes whole communities.

You can write up to 500 words on your experience of the theme of rescue and upload it to landcareaustralia.org.au/rescue/

Or if you would like some help bringing it all together contact Andrea 03 5358 4410



TUSSOCK HITCHES A RIDE ACROSS THE STATE January 2019

Serrated Tussock (*Nassella trichotoma*) is Australia's worst perennial grass weed that now infests over 1 million ha of southeastern Australia. It is a highly unpalatable plant

and rarely eaten by livestock.

The **Victorian Serrated Tussock Working Party (VSTWP)** would like to advise landowners to ensure fodder and hay purchased this summer and autumn is free of noxious weeds, and in particular, **serrated tussock**. The previous year has seen perfect conditions for this weed of national significance to seed prolifically, resulting in many paddocks being infested prior to baling for fodder. Drier conditions also result in more fodder being transported around the state and interstate.

Whilst it can be difficult to inspect all fodder purchased for noxious weeds, VSTWP Executive Officer Doug May suggests that “landowners should attempt to purchase stockfeed from reputable outlets that can verify the absence of declared noxious weeds and from areas outside of the serrated tussock core infestations around the fringes of northern and western Melbourne”. “Landowners are often unaware of the grassy weed in their paddocks, especially during a decent spring like the one we just had and may bale paddocks unaware of the viable seeds in the fodder” noted Mr May.

The VSTWP recommends that landowners set aside designated feed-out area, which allows the landowner to monitor this area regularly for the germination of weeds particularly after periods of rain. Landowners should keep an eye out for Serrated Tussock or any new or unusual plants in these feed-out areas and undertake control measures early before they flower and set seed.

Long standing member and current chairperson of the VSTWP, John Burgess, stated that the VSTWP “advocates that best practice management is to control and treat mature serrated tussock plants prior to flowering and seeding each season with a registered herbicide, manual removal or cultivation”.

Serrated tussock is an introduced invasive plant from South America that has the potential to rapidly decrease the biodiversity of native grasslands and seriously reduce the agricultural capacity of properties.

For further information, please visit www.serratedtussock.com, or email info@serratedtussock.com.



FarmPlan 21 Course, Agriculture Victoria

Agriculture Victoria and the Glenelg Hopkins CMA invite you to participate in a whole farm planning course to be run at Ararat in early 2019 with Clem Sturmfels. Family members are also welcome to attend. Course fully sponsored by the Glenelg Hopkins CMA.

TOPICS:

- Computer mapping
- Soils & land classing
- Farm design & layout
- Farm water supply
- Pasture & grazing management
- Biodiversity & shelterbelts
- Climate, vision & goals
- Biosecurity

13 February – 20 March

Every Wednesday for six weeks

9 am – 3 pm

Shire Hall, 223 – 239 Barkly Street, Ararat

Lunch and morning tea will be provided

RSVP: Clem Sturmfels by Wednesday 30 January (have your PIC number handy)

ph: 5355 0535 mob: 0429 018 879 email: clem.sturmfels@ecodev.vic.gov.au

****Fire: Individual sessions will be cancelled or postponed on Code Red Days****